DOCUMENT RESUME

ED 460 827 SE 061 817

TITLE	Grade 10 to Grade 12 Mathematics Resources: Annotated Bibliography.
INSTITUTION	Alberta Dept. of Education, Edmonton. Curriculum Standards Branch.
ISBN	ISBN-0-7732-9921-1
PUB DATE	1998-00-00
NOTE	82p.; Contains small type.
AVAILABLE FROM	Alberta Department of Education, Learning Resources Unit, Curriculum Standards Branch, Devonian Bldg., West Tower, 11160 Jasper Avenue, Edmonton, Alberta, T5K 0L2 Canada. Fax: 403-422-0576. For full text: http://www.ednet.edc.gov.ab.ca.
PUB TYPE	Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*Educational Resources; Foreign Countries; Grade 10; Grade 11; Grade 12; High Schools; *Instructional Materials; Mathematics Curriculum; *Mathematics Education
IDENTIFIERS	*Canada (West)

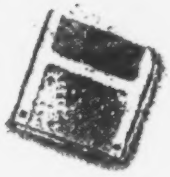
ABSTRACT

This annotated bibliography identifies the English language resources endorsed by Alberta, Canada and all Western Canadian Protocol (WCP) jurisdictions implementing The Common Curriculum Framework for K-12 Mathematics Grade 10 to Grade 12. The WCP resources in this bibliography were selected through a collaborative review process based on their high level of fidelity with the rational, philosophical, mathematical processes and outcome of The Common Curriculum Framework for K-12 Mathematics Grade 10 to Grade 12. (ASK)

Reproductions supplied by EDRS are the best that can be made
from the original document.

SE

ED 460 827



Grade 10 to Grade 12 Mathematics Resources

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

C. Andrews

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

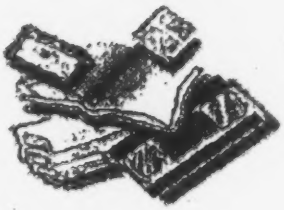
U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Annotated Bibliography



Alberta EDUCATION

Curriculum Standards Branch

1998

SE001817

BEST COPY AVAILABLE

FEEDBACK - Grade 10 to Grade 12 Mathematics, 1998

Please complete the following:

_____Teacher
_____School administrator
_____System administrator
_____Other (please specify) _____

1. I found this document:
   _____ extremely useful
   _____ useful
   _____ somewhat useful
   _____ not very useful

2. What could be added to make this document more helpful?

_____
_____
_____
_____
_____
_____
_____

3. Other comments and suggestions:

_____
_____
_____
_____
_____
_____
_____

Thank you for your feedback.
Please send your response to:

Learning Resources Unit
Curriculum Standards Branch
Alberta Education
11160 Jasper Avenue NW
Edmonton, AB, Canada
T5K 0L2

Fax: 403–422–0576

Alberta
Grade 10 to Grade 12
Mathematics Resources

Annotated Bibliography

June 1998

Copyright © 1998 by Alberta Education

ALBERTA EDUCATION CATALOGUING IN PUBLICATION DATA

Alberta. Alberta Education. Curriculum Standards Branch.
Grade 10 to grade 12 mathematics resources : annotated bibliography.

Available on Internet, URL: http://ednet.edc.gov.ab.ca
ISBN 0-7732-9921-1

1. Mathematics — Study and teaching (Secondary) — Alberta — Bibliography.
I. Title.

QA14.C2.A333 1998 372.7

Copyright © 1998, the Crown in Right of Alberta, as represented by the Minister of Education. Alberta Education, Curriculum Standards Branch, 11160 Jasper Avenue, Edmonton, Alberta, T5K 0L2.

Permission is given by the copyright owner to reproduce this document for educational purposes and on a nonprofit basis.

TABLE OF CONTENTS

PAGE

INTRODUCTION ..... / 1

APPLIED MATHEMATICS

Applied Mathematics 10 ..... / 7
Applied Mathematics 20 ..... / 19
Applied Mathematics 30 ..... / 31

PURE MATHEMATICS

Pure Mathematics 10 ..... / 35
Pure Mathematics 20 ..... / 51
Pure Mathematics 30 ..... / 63

AUTHORIZED RESOURCES UNDER REVIEW ..... / 71

SERIES/TITLE LISTING ..... / 79

©Alberta Education, Alberta, Canada

INTRODUCTION

Foreword

This annotated bibliography identifies the English language resources endorsed by all Western Canadian Protocol (WCP) jurisdictions implementing *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12.*

The Western Canadian Protocol for Collaboration in Basic Education Kindergarten to Grade 12 was signed in December 1993 by the ministers of education from Manitoba, Saskatchewan, Alberta, British Columbia, Yukon Territory, and the Northwest Territories. *The Common Curriculum Framework for K–12 Mathematics*, for Kindergarten to Grade 9, was released in June 1995 and Grade 10 to Grade 12 was released in June 1996.

Alberta implemented the general and specific outcomes of the Common Curriculum Framework for K–9 Mathematics for Grade 7 and Grade 9 in September 1996 and for Kindergarten to Grade 6 and Grade 8 in September 1997. Pure Mathematics 10 is to be implemented in September 1998, followed by Pure Mathematics 20 in September 1999 and Pure Mathematics 30 in September 2000. Applied Mathematics 10 can be optionally implemented in September 1998, and the other courses in the sequence can be optionally implemented in the following years. Provincial implementation for Applied Mathematics 10 is to occur in September 1999, followed by Applied Mathematics 20 in September 2000 and Applied Mathematics 30 in September 2001.

The WCP resources in this annotated bibliography were selected, through a collaborative review process, based on their high level of fidelity with the rationale, philosophy, mathematical processes and outcomes of *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12.* These resources have undergone an intensive review and were found to be the most suitable of those submitted. **All** of the WCP resources have been authorized for use in Alberta and include the WCP logo.

All resources previously authorized for Grade 10 to Grade 12 are included in this bibliography in the Authorized Resources Under Review section. Resources for Mathematics 14, 24 and 31 will be retained; they are also included in the above mentioned section.

A complete listing of all authorized learning and teaching resources is also available through the Alberta Education web site at <http://ednet.edc.gov.ab.ca> under Students and Learning, Learning and Teaching Resources.

Future Calls for Resources

The first call for resources for Grade 10 to Grade 12 mathematics resulted in the approval of an initial set of resources to support the Common Curriculum Framework. Future calls for resources will be issued to complete the collection of resources for Grade 10 to Grade 12 mathematics.

The next call for mathematics resources for Grade 10 to Grade 12 should be issued later in 1998, and additional resources should be added to the WCP resource collection in the spring of 1999. This would result in new resources being authorized by Alberta Education in the spring of 1999 for Grade 10 to Grade 12 mathematics.

Applied Mathematics Breadth Resources

The call for applied and pure mathematics Grade 10 to Grade 12 resources was issued on June 25, 1996. By the spring of 1997, there were concerns that there might not be any applied mathematics breadth resources developed and submitted for review by the February 2, 1998 submission deadline. Through correspondence with all relevant publishers, this assumption was confirmed. A "Request for Proposal" to develop applied mathematics breadth resources for grades 10, 11 and 12 was issued in the fall of 1997. The submissions received were evaluated and one company was chosen for the contract. Addison-Wesley Longman has entered into a contract with Alberta Education and the WCP jurisdictions to prepare an applied mathematics resource for each of grades 10, 11 and 12.

The timelines for developing the materials are as follows:

Applied Mathematics 10

- 1/3 of the manuscript – June 1, 1998
- Entire preprint document without colour – August 15, 1998
- Final bound resource – June 1, 1999

Applied Mathematics 20

- Entire preprint document without colour – June 1, 1999
- Final bound resource – June 1, 2000

Applied Mathematics 30

- Entire preprint document without colour – June 1, 1999
- Final bound resource – June 1, 2001

Pure Mathematics Breadth Resources

From this first call for mathematics resources for Grade 10 to Grade 12, breadth resources were identified for Pure Mathematics 10 and 20 only. It is anticipated that additional breadth resources for pure mathematics will be received as part of the subsequent calls for resources.

Pure Mathematics 10

Two multicomponent series were approved as WCP mathematics resources for Pure Mathematics 10.

Pure Mathematics 20

One breadth resource was approved as a WCP mathematics resource for Pure Mathematics 20.

Pure Mathematics 30

No breadth resource was submitted for Pure Mathematics 30. It is anticipated that suitable submissions will be received as part of the next call for resources process.

Organization

The resources in this bibliography are organized by course, authorization status and then alphabetically by title. Resources that are suitable for more than one course appear for each of the applicable courses, thus providing a comprehensive listing of materials for each course.

Annotations with resource descriptions have been written for each resource. Where material is deemed to be particularly useful for students with special needs, this information is included in the *Audience* section of the annotation.

A listing of currently authorized high school mathematics resources is included at the end of the bibliography. The proposed status of these resources is indicated.

An alphabetical title listing at the end of the bibliography indicates the designated course(s) of each resource.

Note: In the annotations, Common Curriculum Framework is used to refer to the document, *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12.*

Pricing Information

The prices appearing in this document are estimated prices for schools and should be used as a guideline for purchase planning. The estimated prices for WCP resources are applicable to all six participating jurisdictions (four provinces and two territories). The final selling prices for these resources in jurisdictions with book bureaus will be dependent upon provincial negotiations, cost recovery requirements, and the inclusion of shipping and handling charges. For confirmation of prices, please contact the Learning Resources Distributing Centre directly at 403–427–2767, dial 310–0000 to be connected toll free; fax 403–422–9750; or visit their web site at <http://www.lrdc.edc.gov.ab.ca/>.

Authorization Status

All resources included in this annotated bibliography have been authorized as either **basic**, **support** or **authorized teaching** resources.

WCP Resource Information

All WCP learning and teaching resources included in this annotated bibliography have been designated as WCP key resources for *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12* and include a WCP icon. The WCP resources include information on the Mathematical Processes, Strand/Substrand curriculum coverage and the following categorizations:

- *Breadth* identifies learning resources with the highest possible level of fidelity with the general and specific outcomes published for a course.
- *Depth* identifies learning resources that address a limited range of general and specific outcomes for a cluster or set of clusters, but provide an especially effective learning experience for students.
- *Breadth and Depth* identifies comprehensive learning resources that provide both the *breadth* and *depth* dimensions for a particular course.
- *Teacher* identifies resources that assist teachers with the implementation of the Common Curriculum Framework and any courses derived from it.

Criteria for the Selection of Learning and Teaching Resources

Resources in this annotated bibliography were selected according to the following criteria:

- *Content and Curriculum Fit* includes how effectively a learning or teaching resource supports any given learning outcome within a strand or substrand and meets student needs.
- *Instructional Design* includes the organization and presentation techniques; the methods used to introduce, develop and summarize concepts; the vocabulary level of a resource; and the suitability to student learning styles or to special audiences.
- *Technical Design* includes binding, type of print, quality of illustrations, durability and format. For multimedia resources, such factors as pacing, quality of pictures/sound,

user friendliness, use of special features for emphasis, and interactivity are considered.

- *Social Considerations/Tolerance and Understanding* includes screening for tolerance and understanding and social concerns.

When selecting learning and teaching resources from this list, consideration should be given to how the resources meet the learning needs of students, and to the perspectives of the local community. Information on a resource may be obtained from the descriptive information in this list, from the supplier, from published reviews or colleagues, and from an examination of the resource.

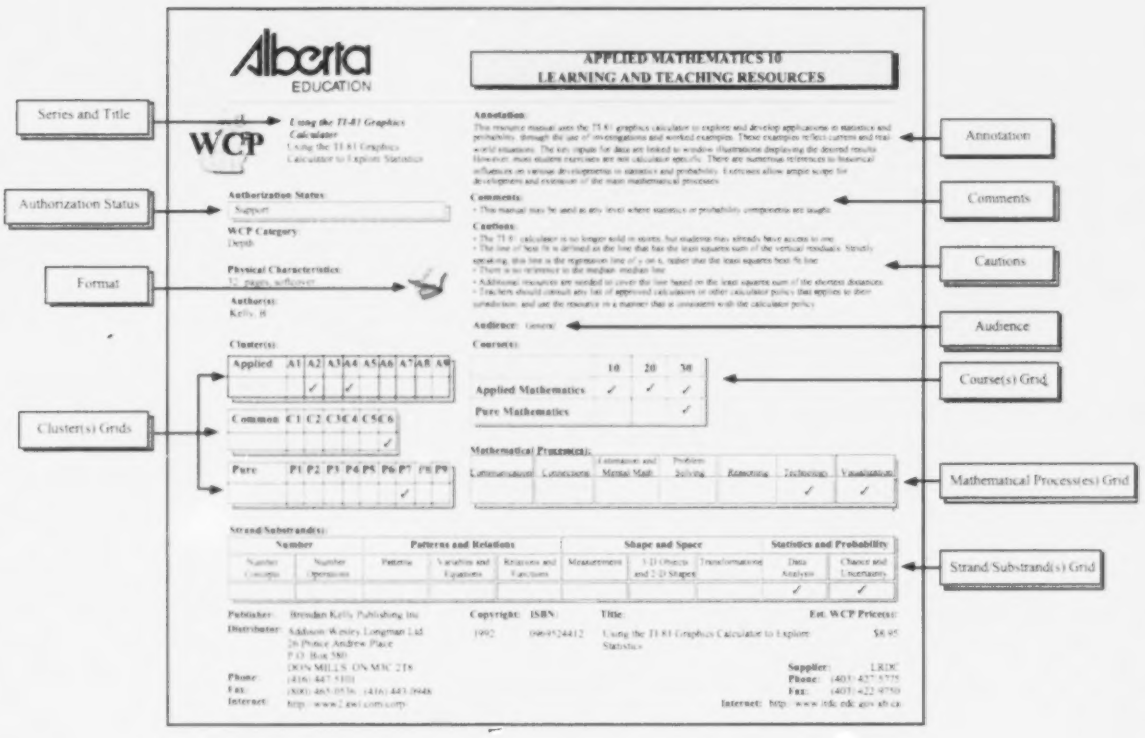
Acknowledgments

Alberta Education would like to thank those involved in the review and selection process to identify the best student and teacher resources for Grade 10 to Grade 12 mathematics. In 1998, 25 teachers were selected by the participating WCP jurisdictions to review over 200 items received in response to the invitation to publishers, producers and distributors for resource submissions.

Appreciation is also extended to all the school systems in the WCP jurisdictions that supported teachers participating in the review process.

Finally, appreciation is extended to the publishers, producers and distributors who, in many cases, engaged in significant development to provide resources specifically designed for *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12.*

SAMPLE ANNOTATION



- *Series and Title:* series names are indicated by italics.
- *Authorization Status:* indicates the status of the resource as basic, support or authorized teaching.
- *Format:* is represented by an icon, such as:

Print

Software

CD-ROM

Kit

- *Cluster(s) Grids:* identifies the cluster(s) of outcomes that are addressed in the resource.
- *Annotation:* provides an overview of the resource.
- *Comments:* provide additional information about the resource.
- *Cautions:* alert teachers to potentially sensitive issues/community concerns, or concerns about curriculum fit.
- *Audience:*
  - General: the majority of students
  - LD: students who have difficulty in processing and understanding spoken, written or visual information
  - ESL: students who are learning English as a second language
- *Course(s) Grid:* identifies the course(s) for which the resource is most suitable.
- *Mathematical Process(es) Grid:* indicates those processes students will use when working through the activities provided in the resource.
- *Strand/Substrand(s) Grid:* allows teachers to see readily the fit between the Common Curriculum Framework strands/substrands and the outcomes covered in the resource.

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Exploring Functions with the TI-82 Graphics Calculator

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
		✓			✓				
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
						✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edu.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

WCP

Exploring Statistics with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					

Common	C1	C2	C3	C4	C5	C6
			✓			✓

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

WCP

Geometer's Sketchpad
- The Geometer's Sketchpad (Macintosh Version 3)
- The Geometer's Sketchpad (Windows Version 3.03)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
- Macintosh Version: Three 3.5" discs; one binder with User Guide and Reference Manual, 242 pages, softcover; Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
- Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 20, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 20. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
- This resource can have greater applications as the user becomes more familiar with the program.
- The videocassette supports both Macintosh and Windows.

System Requirements:
- Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
- Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
- The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
	✓		✓						
Common	C1	C2	C3	C4	C5	C6			
	✓				✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
					✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
Fax: (905) 727-6265
Internet: http://www.spectrumed.com

Copyright:
1995
1995

Component Titles:	Est. WCP Price(s):
• The Geometer's Sketchpad (Macintosh Version 3)	$274.95
• The Geometer's Sketchpad (Windows Version 3.03)	$274.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓		✓		✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓		✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc
Distributor: Davidson & Associates, Inc
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
Fax: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996
ISBN: 0784910634
Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)
Est. WCP Price(s): $79.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

WCP

RADE (Radian Protractor and Teacher's Guide)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
One Radian Protractor and Teacher's Guide, 20 pages, loose, all in a softcover folder

Author(s):
Gagnon-Messier, D., Forget, R.

Annotation:
The RADE is a circular protractor with scales in radians and decimals of a radian, p radians and fractions of p radians, as well as degrees. The accompanying teacher's guide explains the use of the protractor and provides overheads and question/answer worksheets for student use to reinforce concepts.

Comments:
- This resource is available in English and in French.
- The use of this resource is primarily limited to Pure Mathematics 30, outcomes P8–1 and P8–2, with a limited applicability to cluster C3 in Pure Mathematics 10 and Applied Mathematics 10.

Cautions:
- This resource is often marketed as part of a kit that contains other elements. The other components of the kit were either not approved as WCP resources for Grade 10 to Grade 12, or considered as more appropriate for Grade 7 to Grade 9.
- The approved resource consists only of the student protractor and the accompanying print guide.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
			✓						
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
								✓	

Course(s):

	10	20	30
Applied Mathematics	✓		
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓		✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓	✓	✓			

Publisher: Société RADE Enr.
Distributor: Curriculum Innovations
Box 48, Site 3, RR4
STONY PLAIN AB T7Z 1X4
Phone: (403) 963-5992
Fax: (403) 963-5981

Title: RADE (Radian Protractor and Teacher's Guide)
Est. WCP Price(s): $10.00

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Functions

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**				**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1991

ISBN: 0969524404

Title: Using the TI-81 Graphics Calculator to Explore Functions

Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
						✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
							✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412
Title: Using the TI-81 Graphics Calculator to Explore Statistics
Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1993
ISBN: 0969698100
Title: What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator
Est. WCP Price(s): $12.30

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
80 pages, softcover

Author(s):
Alexander, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
		✓							
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Annotation:
This resource explores the straight line, using the TI-82 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes. This resource also introduces the concept of line of best fit.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- This "how to" resource is dependent upon the TI-82 calculator.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
		✓	✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓				✓	

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 0969698135
Title: What If...?: The Straight Line: Investigations with the TI-82 Graphics Calculator
Est. WCP Price(s): $12.30

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

WCP

Programming and Programs for the TI-82 Graphics Calculator

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	
Common	C1	C2	C3	C4	C5	C6			
			✓	✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536, (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

APPLIED MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Box Cars & One-Eyed Jacks: Math Games for Kids
Radical Math: Math Games Using Cards and Dice (Volume VII)
(Grades 7 – 12)

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
208 pages, softcover, and 10 special dice

Author(s):
Currah, J.; Felling, J.; Lachance, N.

Annotation:
This resource offers some unique activities that target the Patterns and Relations strand. The majority of the activities are at the Grade 10 level. The resource encourages the processes of communication, estimation and mental mathematics, problem solving, reasoning, and visualization.

Comments:
- Many of the activities can be used to help students achieve fluency in such topics as polynomial manipulations and the use of equivalent forms of expressions containing radicals.
- There is a good curriculum fit to Pure Mathematics 10; the curriculum fit to Applied Mathematics 10 is not as good.

Cautions:
- Some sections of the resource are more suitable for prerequisite studies in Grade 7 to Grade 9.
- Some of the activities, especially those on the trigonometry of right triangles, are mislabelled for grade level.
- There are few real-life applications in the resource.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
	✓	✓							
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
	✓	✓							

Course(s):

	10	20	30
Applied Mathematics	✓		
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓		✓			

Publisher: Box Cars & One-Eyed Jacks
Distributor: Box Cars & One-Eyed Jacks
3930 – 78 Avenue
EDMONTON AB T6B 2W4
Phone: (403) 440-6284
Fax: (403) 440-1619

Copyright: 1996
ISBN: 0968161308
Title: Radical Math: Math Games Using Cards and Dice (Volume VII) (Grades 7 – 12)
Est. WCP Price(s): $36.00

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

APPLIED MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Active Learning
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Annotation:
This resource provides hands-on experience by using algebra tiles to help students develop an understanding of ratios, integers, polynomials, and factoring and solving equations. It provides ideas for teachers on how to help students use algebra tiles and the accompanying activity sheets. Each topic includes teacher notes, student blackline master activity sheets and answers for all activities.

Authorization Status:
Support

WCP Category:
Depth

Comments:
- Algebra tiles are not included.
- This resource is primarily for Pure Mathematics 10 but can also be used in Applied Mathematics 20 and Pure Mathematics 20.
- The number concepts and number operations outcomes addressed in this resource are in the Grade 7 to Grade 9 curriculum, not the Grade 10 curriculum.

Physical Characteristics:
90 pages, binder

Cautions:
- Some sections of the binder are more suitable for prerequisite studies in Grade 7 to Grade 9.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
					✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓		✓	✓					

Course(s):

	10	20	30
Applied Mathematics		✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓						

Publisher: Exclusive Educational Products
Distributor: Exclusive Educational Products
243 Saunders Road
BARRIE ON L4M 6E7
Phone: (705) 725-1166
Fax: (705) 725-1167

Copyright:
1991

Title:
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Est. WCP Price(s):
$34.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

APPLIED MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Explore Quadratic Functions with the TI-83 or TI-82

Annotation:
This manual can be used as either a student or a teacher resource for applying graphing calculator technology to the exploration of quadratic functions and equations. It contains concise and precise instructions on relevant keying sequences. There are many "window" diagrams showing input and output screens. Problems posed relate to real-world situations and provide ample opportunities for discussion, exploration and extension of a variety of situations beyond the routine.

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
120 pages, softcover

Author(s):
Alexander, B.

Cautions:
- The resource uses keying sequences that are specific to the TI-83 and TI-82 models of calculator.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
					✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓					

Course(s):

	10	20	30
Applied Mathematics		✓	
Pure Mathematics		✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**				**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1997
ISBN: 0969698143
Title: Explore Quadratic Functions with the TI-83 or TI-82
Est. WCP Price(s): $17.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Exploring Functions with the TI-82 Graphics Calculator

WCP

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Exploring Statistics with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536, (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

APPLIED MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Geometer's Sketchpad
- The Geometer's Sketchpad (Macintosh Version 3)
- The Geometer's Sketchpad (Windows Version 3.03)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
- Macintosh Version: Three 3.5" discs; one binder with User Guide and Reference Manual, 242 pages, softcover; Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
- Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 20, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 20. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
- This resource can have greater applications as the user becomes more familiar with the program.
- The videocassette supports both Macintosh and Windows.

System Requirements:
- Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
- Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
- The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
	✓		✓						
Common	C1	C2	C3	C4	C5	C6			
	✓				✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
					✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
Fax: (905) 727-6265
Internet: http://www.spectrumed.com/

Copyright:
1995
1995

Component Titles:	Est. WCP Price(s):
• The Geometer's Sketchpad (Macintosh Version 3)	$274.95
• The Geometer's Sketchpad (Windows Version 3.03)	$274.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓		✓		✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓		✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc.
Distributor: Davidson & Associates, Inc.
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
Fax: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996

ISBN: 0784910634

Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)

Est. WCP Price(s): $79.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

APPLIED MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Functions

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991

ISBN: 0969524404

Title: Using the TI-81 Graphics Calculator to Explore Functions

Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

	A1	A2	A3	A4	A5	A6	A7	A8	A9
Applied		✓		✓					

	C1	C2	C3	C4	C5	C6
Common						✓

	P1	P2	P3	P4	P5	P6	P7	P8	P9
Pure							✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412
Title: Using the TI-81 Graphics Calculator to Explore Statistics
Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**

Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**
		✓			✓	

Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	-
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993

ISBN: 0969698100

Title: What If...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Est. WCP Price(s): $12.30

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

WCP

What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
80 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-82 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes. This resource also introduces the concept of line of best fit.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- This "how to" resource is dependent upon the TI-82 calculator.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
		✓							
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
		✓	✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓				✓	

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 0969698135
Title: What If...?: The Straight Line: Investigations with the TI-82 Graphics Calculator
Est. WCP Price(s): $12.30

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Programming and Programs for the TI-82 Graphics Calculator

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	
Common	C1	C2	C3	C4	C5	C6			
			✓	✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1994

ISBN: 1895997011

Title: Programming and Programs for the TI-82 Graphics Calculator

Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

APPLIED MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

WCP

Exploring Statistics with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

BEST COPY AVAILABLE

Alberta EDUCATION

APPLIED MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedoya, J.Z. et al

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
						✓		✓	✓
Common	C1	C2	C3	C4	C5	C6			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	20	30
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

Publisher: Prentice Hall, Inc.
Distributor: Prentice Hall Ginn Publishing Co.
1870 Birchmount Road
SCARBOROUGH ON M1P 2J7
Phone: (416) 293-3621
Fax: (416) 297-2601
Internet: http://www.prenhall.com/

Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

APPLIED MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
		✓		✓					

Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	
						✓	

Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
							✓		

Course(s):

	10	**20**	**30**
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412

Title: Using the TI-81 Graphics Calculator to Explore Statistics

Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

APPLIED MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

Programming and Programs for the TI-82 Graphics Calculator

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	
Common	C1	C2	C3	C4	C5	C6			
			✓	✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

WCP

Addison-Wesley Mathematics 10 (Western Canadian Edition)

- Student Text
- Independent Study Guide
- Teacher's Resource Book (includes CD-ROM with Selected Solutions from Student Text and Self-Test Solutions from Independent Study Guide)
- Template and Data Kit (includes Teacher's Guide and CD-ROM, Version 1.0)

Authorization Status:

Basic

WCP Category:

Breadth

Physical Characteristics:

- Student Text – 651 pages, hardcover
- Independent Study Guide – 138 pages, softcover
- Teacher's Resource Book – 30 pages, coilbound, and one CD-ROM
- Template and Data Kit – Teacher's Guide, 154 pages, coilbound; and one CD-ROM (for ClarisWorks, Macintosh 2.0, Windows 1.0, Microsoft Works 3.0, Microsoft Office 97 and Windows 95)

Author(s):

Alexander, R. et al.

Annotation:

The resource package closely maps the content of the Common Curriculum Framework. The framework's mathematical processes are embedded throughout the resource. A conscientious effort was employed to relate the mathematical concepts developed to real-world situations. The student text makes good use of visual presentations, and the format is consistent throughout. Icons and headings are the primary means of navigation through the student text.

This program supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts, and open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas; manipulatives are used for the understanding of abstract concepts; and the use of appropriate technology is integrated throughout the text. The mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology, and visualization are highlighted through the use of icons in examples, explanations and activities.

• Student Text

The text has nine chapters that relate mathematical content to topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows the problem, depending on the chapter. An inquiry approach is used to discover concepts in the development of the outcomes. Practice exercises are included. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource. Further attention to the mathematical processes is found in the other components of the resource.

• Independent Study Guide

This resource provides students with additional examples and explanations to supplement the material in the main student resource. An introductory chapter helps the student develop efficient study skills. For the other nine chapters, which parallel the chapters of the student text, additional explanations, cross-referenced self-tests, mini-glossaries and overviews provide additional assistance to the student. Solutions to the self-tests included in the independent study guide are given at the back of the guide in short form, and in more extended form on a CD-ROM included in the teacher's resource book.

• Teacher's Resource Book

The teacher's resource book contains comprehensive teaching notes for each section of the student text, and blackline masters, as well as reinforcement, extension, enrichment and assessment activities. A graphing calculator handbook and reproducible graphing calculator activities are included. A CD-ROM with solutions to the student text and independent study guide is part of the teacher's resource book.

• Template and Data Kit

This resource includes four extensive databases – weather, helicopters, Olympic Summer Games and youth health; templates for the spreadsheet activities found in the student text; and a teacher's guide. The teacher's guide contains spreadsheet and database tutorials, additional technology activities, and teaching notes and answers. The activities address a wide variety of outcomes.

Comments:

- The student resource attempts to incorporate the mathematical processes and the philosophy of the Common Curriculum Framework through the use of appropriate section headings and icons.
- In each of the chapters of the teacher resource there is cross-referencing of the mathematical processes to the materials being presented to the students. Emphasis given to technological solutions is most apparent in the teacher resource.
- Exercises are split into A, B and C levels. Students who only do the A exercises will not have enough exposure to the mathematical processes.
- Manipulatives, such as algebra tiles and suitable software, are necessary for using the resource effectively. These are not supplied with the resource.

System Requirements:

Template and Data Kit

- Macintosh: System 6.0.5 or higher, 4 MB RAM, mouse, ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum, 4 MB RAM (8 MB recommended), either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, mouse, either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

Cautions:

- References are made in both the student and the teacher materials to specific Internet web sites, including one mathematics site being maintained by Addison-Wesley Longman. These web sites, including Addison-Wesley Longman's own site, are not approved. Teachers, for their own protection, should review the current status of the web sites, including the documents identified in the links, to ensure that the site contains accurate information and information that meets the criterion of social considerations, especially tolerance and understanding.
- In the treatment of the outcomes related to right-angled trigonometry, there is material in the student resource that relates only to the outcomes incorporated in the Common Curriculum Framework at the Grade 9 level.
- The template and data kit can only be used with ClarisWorks, Microsoft Works or Microsoft Excel/Access when used in a Windows 95 environment. In a Windows 3.1 environment, only ClarisWorks can be used.

Audience: General

Continued

©Alberta Education, Alberta, Canada

BEST COPY AVAILABLE

Alberta EDUCATION

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓	✓	✓						
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓	✓							

Course(s):

	10	20	30
Applied Mathematics			
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**			**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓

Publisher: Addison-Wesley
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright:	**ISBN:**	**Component Titles:**	**Est. WCP Price(s):**
1998	0201346192	• Student Text	$49.95
1998	0201346206	• Independent Study Guide	$5.95
1998	0201346214	• Teacher's Resource Book (includes CD-ROM with Selected Solutions from Student Text and Self-Test Solutions from Independent Study Guide)	$119.95
1998	0201346230	• Template and Data Kit (includes Teacher's Guide and CD-ROM, Version 1.0)	$119.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

WCP

MATHPOWER 10 (Western Edition)
- Student Text
- Teacher's Resource
- Computer Data Bank (Teacher's Resource and Data Disk)
- Computerized Assessment Bank

Authorization Status:
Basic

WCP Category:
Breadth

Physical Characteristics:
- Student Text – 480 pages, hardcover
- Teacher's Resource – 310 pages, softcover
- Computer Data Bank – Teacher's Resource, 98 pages, softcover, Data Disk, one 3.5" disc
- Computerized Assessment Bank – Four 3.5" discs, and User's Notes, 27 pages, softcover

Author(s):
Angel, P. et al.

Annotation:
The resource package closely maps the content and philosophy of the Common Curriculum Framework. The framework's mathematical processes are woven throughout the resource. A conscientious effort was made to relate the mathematical concepts to real-world situations. The student text makes good use of visual presentations, and the format is consistent throughout.

This program supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts, and questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas; manipulatives are used for the understanding of abstract concepts, and the use of appropriate technology is integrated throughout the text. The mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology, and visualization are integrated in examples and activities.

• Student Text
The text has eight chapters that relate to topics from the Common Curriculum Framework strands. Each chapter begins with a connection problem followed by a "Getting Started" section. An inquiry approach is used to discover concepts in the development of the outcomes. Practice exercises are included. Applications and problem-solving questions use real-life examples. Suggestions are made for incorporating graphing calculators and computer software. Chapter reviews as well as cumulative reviews are provided. Resources at the end of the text include data banks, answers, glossary, applications index and technology index.
• Teacher's Resource
The teacher's resource contains extensive teaching notes, including enrichment and reteaching ideas, a list of prerequisite skills, and assessment strategies. Also included are suggestions for addressing the use of technology and the mathematical processes, especially communication, mental mathematics, problem solving and connections. Some answers for problems are provided, with one solution being given for those problems with multiple approaches/solutions. Blackline masters are included for grid, dot and geometric net shapes, and for alternate assessment forms.
• Computer Data Bank
This resource includes five extensive, high interest databases — movies, sports, skiing, Olympics and insurance — together with a teacher's resource. In addition to application blackline masters for student work, software specific blackline masters are included to help teach database management skills. Questions address a wide variety of outcomes.
• Computerized Assessment Bank
This Windows based (3.1 or 95) software package includes a manual, a mathematical editor and a question bank. There are about 50 questions per chapter. Some multiple choice questions can have their distractors reordered; and, for many other questions, the user can change key parameters in the stem, whereupon the program will change the distractors with a click of a button. The mathematical editor allows teachers to add questions to address more fully the philosophy of the program.

Comments:
- The introductory pages of the student resource, which outline the mathematical processes and the NCTM Standards, are an essential part of the resource.
- An introduction to the operation of ClarisWorks for Windows 4.0 and Microsoft Works for Windows 3.0 is included as part of the teacher's resource for the computer data bank.
- Manipulatives, such as algebra tiles and suitable software, are necessary for using the resource effectively. These are not supplied with the resource.

System Requirements:
Computer Data Bank
- Windows 95: 486/50 MHz, 8 MB RAM, mouse, either ClarisWorks or Microsoft Works.
- Windows 3.1: 386DX/33 MHz minimum, 4 MB RAM (8 MB recommended), Microsoft Works Windows 95 recommended.

Computerized Assessment Bank
- Windows 95: 486DX/66 MHz, Pentium processor recommended, 8 MB RAM, mouse, either ClarisWorks or Microsoft Works.
- Windows 3.1: 486DX/66 MHz, Pentium processor recommended, 5 MB RAM (8 MB recommended), Microsoft Works, Windows 95 recommended.

Cautions:
- References are made in both the student and the teacher materials to specific Internet web sites. The web sites are not approved. Teachers, for their own protection, should review the current status of the web sites, including the documents identified in the links, to ensure that the site contains accurate information and information that meets the criterion of social considerations, especially tolerance and understanding.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.
- The computerized assessment bank is a test generator but does not include a tracking system.
- The computer data bank can only be used with ClarisWorks for Windows or Microsoft Works for Windows. It does not include either a Macintosh version or a version that can be used with any of the standard office suites, whether Macintosh or Windows 95.
- For those using the 486DX chip, a math coprocessor is required to use the computerized assessment bank. The bank can be operated with all Pentium chips.

Audience: General

Continued

Alberta EDUCATION

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓	✓	✓						
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓	✓							

Course(s):

	10	20	30
Applied Mathematics			
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**				**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓

Publisher: McGraw-Hill Ryerson
Distributor: McGraw-Hill Ryerson Ltd
300 Water Street
WHITBY ON L1N 9B6
Phone: (905) 430-5080
Fax: (905) 430-5194
Internet: http://www.mcgrawhill.ca

Copyright:	**ISBN:**	**Component Titles:**	**Est. WCP Price(s):**
1998	0075525968	• Student Text	$48.95
1998	0075525976	• Teacher's Resource	$110.00
1998	0075600196	• Computer Data Bank (Teacher's Resource and Data Disk)	$110.00
1998	0075601621	• Computerized Assessment Bank	$225.00

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Active Learning
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
90 pages, binder

Annotation:
This resource provides hands-on experience by using algebra tiles to help students develop an understanding of ratios, integers, polynomials, and factoring and solving equations. It provides ideas for teachers on how to help students use algebra tiles and the accompanying activity sheets. Each topic includes teacher notes, student blackline master activity sheets and answers for all activities.

Comments:
- Algebra tiles are not included.
- This resource is primarily for Pure Mathematics 10 but can also be used in Applied Mathematics 20 and Pure Mathematics 20.
- The number concepts and number operations outcomes addressed in this resource are in the Grade 7 to Grade 9 curriculum, not the Grade 10 curriculum.

Cautions:
- Some sections of the binder are more suitable for prerequisite studies in Grade 7 to Grade 9.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
					✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓		✓	✓					

Course(s):

	10	20	30
Applied Mathematics		✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓						

Publisher: Exclusive Educational Products
Distributor: Exclusive Educational Products
243 Saunders Road
BARRIE ON L4M 6E7
Phone: (705) 725-1166
Fax: (705) 725-1167

Copyright:
1991

Title:
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Est. WCP Price(s):
$34.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Exploring Functions with the TI-82 Graphics Calculator

WCP

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc
Distributor: Addison-Wesley Longman Ltd
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536, (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1993

ISBN: 1895997003

Title: Exploring Functions with the TI-82 Graphics Calculator

Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Exploring Statistics with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Geometer's Sketchpad

- The Geometer's Sketchpad (Macintosh Version 3)
- The Geometer's Sketchpad (Windows Version 3.03)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:

- Macintosh Version: Three 3.5" discs; one binder with User Guide and Reference Manual, 242 pages, softcover, Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
- Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 20, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 20. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
- This resource can have greater applications as the user becomes more familiar with the program.
- The videocassette supports both Macintosh and Windows.

System Requirements:
- Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
- Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
- The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
	✓		✓						

Common	C1	C2	C3	C4	C5	C6
	✓				✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
					✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
Fax: (905) 727-6265
Internet: http://www.spectrumed.com

Copyright:
1995

1995

Component Titles:	Est. WCP Price(s):
• The Geometer's Sketchpad (Macintosh Version 3)	$274.95
• The Geometer's Sketchpad (Windows Version 3.03)	$274.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓		✓		✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓		✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc.
Distributor: Davidson & Associates, Inc.
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
Fax: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996
ISBN: 0784910634
Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)
Est. WCP Price(s): $79.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

RADE (Radian Protractor and Teacher's Guide)

Annotation:
The RADE is a circular protractor with scales in radians and decimals of a radian, p radians and fractions of p radians, as well as degrees. The accompanying teacher's guide explains the use of the protractor and provides overheads and question/answer worksheets for student use to reinforce concepts.

Comments:
- This resource is available in English and in French.
- The use of this resource is primarily limited to Pure Mathematics 30, outcomes P8-1 and P8-2, with a limited applicability to cluster C3 in Pure Mathematics 10 and Applied Mathematics 10.

Cautions:
- This resource is often marketed as part of a kit that contains other elements. The other components of the kit were either not approved as WCP resources for Grade 10 to Grade 12, or considered as more appropriate for Grade 7 to Grade 9.
- The approved resource consists only of the student protractor and the accompanying print guide.

Audience: General

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
One Radian Protractor and Teacher's Guide, 20 pages, loose, all in a softcover folder

Author(s):
Gagnon-Messier, D., Forget, R.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
			✓			

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
								✓	

Course(s):

	10	20	30
Applied Mathematics	✓		
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓		✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓	✓	✓			

Publisher: Societe RADE Inc.
Distributor: Curriculum Innovations
Box 48, Site 3, RR4
STONY PLAIN AB T7Z 1X4
Phone: (403) 963-5992
Fax: (403) 963-5981

Title: RADE (Radian Protractor and Teacher's Guide)

Est. WCP Price(s): $10.00

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

WCP

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedoya, J.Z. et al.

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
						✓		✓	✓

Common	C1	C2	C3	C4	C5	C6

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	20	30
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

Publisher: Prentice Hall, Inc.
Distributor: Prentice Hall Ginn Publishing Co.
1870 Birchmount Road
SCARBOROUGH ON M1P 2J7
Phone: (416) 293-3621
Fax: (416) 297-2601
Internet: http://www.prenhall.com/

Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Functions

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991
ISBN: 0969524404
Title: Using the TI-81 Graphics Calculator to Explore Functions
Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536, (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1993
ISBN: 0969698100
Title: What If...?: The Straight Line: Investigations with the TI-81 Graphics Calculator
Est. WCP Price(s): $12.30

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
80 pages, softcover

Author(s):
Alexander, B

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
		✓							
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Annotation:
This resource explores the straight line, using the TI-82 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes. This resource also introduces the concept of line of best fit.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- This "how to" resource is dependent upon the TI-82 calculator.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
		✓	✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓				✓	

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1994
ISBN: 0969698135
Title: What If...?: The Straight Line: Investigations with the TI-82 Graphics Calculator
Est. WCP Price(s): $12.30

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Programming and Programs for the TI-82 Graphics Calculator

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	
Common	C1	C2	C3	C4	C5	C6			
			✓	✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Box Cars & One-Eyed Jacks: Math Games for Kids
Radical Math: Math Games Using Cards and Dice (Volume VII)
(Grades 7 – 12)

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
208 pages, softcover, and 10 special dice

Author(s):
Currah, J.; Felling, J.; Lachance, N.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓	✓							
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓	✓							

Annotation:
This resource offers some unique activities that target the Patterns and Relations strand. The majority of the activities are at the Grade 10 level. The resource encourages the processes of communication, estimation and mental mathematics, problem solving, reasoning, and visualization.

Comments:
- Many of the activities can be used to help students achieve fluency in such topics as polynomial manipulations and the use of equivalent forms of expressions containing radicals.
- There is a good curriculum fit to Pure Mathematics 10, the curriculum fit to Applied Mathematics 10 is not as good.

Cautions:
- Some sections of the resource are more suitable for prerequisite studies in Grade 7 to Grade 9.
- Some of the activities, especially those on the trigonometry of right triangles, are mislabelled for grade level.
- There are few real-life applications in the resource.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓		
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓		✓			

Publisher: Box Cars & One-Eyed Jacks
Distributor: Box Cars & One-Eyed Jacks
3930 – 78 Avenue
EDMONTON AB T6B 2W4
Phone: (403) 440-6284
Fax: (403) 440-1619

Copyright: 1996

ISBN: 0968161308

Title: Radical Math: Math Games Using Cards and Dice (Volume VII) (Grades 7 – 12)

Est. WCP Price(s): $36.00

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

Addison-Wesley Mathematics 11 (Western Canadian Edition)
• Student Text

Authorization Status:
Basic

WCP Category:
Breadth

Physical Characteristics:
601 pages, hardcover

Author(s):
Alexander, R. et al

Annotation:
The student resource closely maps the content of the Common Curriculum Framework. The framework's mathematical processes are embedded throughout the resource. A conscientious effort was employed to relate the mathematical concepts developed to real-world situations. The student text makes good use of visual presentations, and the format is consistent throughout. Icons and headings are the primary means of navigation through the resource.

This program supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts, and open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, when appropriate, to explore new ideas; manipulatives are used for the understanding of abstract concepts; and the use of appropriate technology is integrated througout the text. The mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology, and visualization are often highlighted through the use of icons in examples, explanations and activities.

• Student Text
The text has nine chapters that relate mathematical content to topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows the problem, depending on the chapter. An inquiry approach is used to discover concepts in the development of the outcomes. Practice exercises are included. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource.

Comments:
• The student resource attempts to incorporate the mathematical processes and the philosophy of the Common Curriculum Framework through the use of appropriate section headings and icons.
• The treatment of nonlinear functions and equations relies heavily on the use of the graphing calculator. Function graphs and numerical equation solutions are treated in advance of the closed-form solutions of the quadratic equation. This contrasts to many resources, which treat the quadratic equation first, with greater emphasis on closed-form solutions.
• Exercises are split into A, B and C levels. Students who only do the A exercises will not have enough exposure to the mathematical processes.
• Manipulatives, such as algebra tiles and suitable software, are necessary for using the resource effectively. These are not supplied with the resource.

Cautions:
• References are made in the resource to specific Internet web sites, including one mathematics site being maintained by Addison-Wesley Longman. These web sites, including Addison-Wesley Longman's own site, are not approved. Teachers, for their own protection, should review the current status of the web sites, including the documents identified in the links, to ensure that the site contains accurate information and information that meets the criterion of social considerations, especially tolerance and understanding.
• Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.
• The student resource contains no reference to the ambiguous case for the solving of oblique triangles. The reference to the ambiguous case is found instead as one exercise in the Addison-Wesley Mathematics 10 student text.

Audience: General

Continued

©Alberta Education, Alberta, Canada

Alberta EDUCATION

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
				✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓	✓				

Course(s):

	10	20	30
Applied Mathematics			
Pure Mathematics		✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**				**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
N/A	✓	✓	✓	✓		✓	**N/A**	**N/A**	**N/A**

Publisher: Addison-Wesley
Distributor: Addison-Wesley Longman Ltd
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1998
ISBN: 0201346249
Title: Student Text

Est. WCP Price(s): $51.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

Active Learning
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
90 pages, binder

Annotation:
This resource provides hands-on experience by using algebra tiles to help students develop an understanding of ratios, integers, polynomials, and factoring and solving equations. It provides ideas for teachers on how to help students use algebra tiles and the accompanying activity sheets. Each topic includes teacher notes, student blackline master activity sheets and answers for all activities.

Comments:
- Algebra tiles are not included.
- This resource is primarily for Pure Mathematics 10 but can also be used in Applied Mathematics 20 and Pure Mathematics 20.
- The number concepts and number operations outcomes addressed in this resource are in the Grade 7 to Grade 9 curriculum, not the Grade 10 curriculum.

Cautions:
- Some sections of the binder are more suitable for prerequisite studies in Grade 7 to Grade 9.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
					✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓		✓	✓					

Course(s):

	10	20	30
Applied Mathematics		✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓						

Publisher: Exclusive Educational Products
Distributor: Exclusive Educational Products
243 Saunders Road
BARRIE ON L4M 6E7
Phone: (705) 725-1166
Fax: (705) 725-1167

Copyright:
1991

Title:
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Est. WCP Price(s):
$34.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Explore Quadratic Functions with the TI-83 or TI-82

Annotation:
This manual can be used as either a student or a teacher resource for applying graphing calculator technology to the exploration of quadratic functions and equations. It contains concise and precise instructions on relevant keying sequences. There are many "window" diagrams showing input and output screens. Problems posed relate to real-world situations and provide ample opportunities for discussion, exploration and extension of a variety of situations beyond the routine.

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
120 pages, softcover

Author(s):
Alexander, B.

Cautions:
- The resource uses keying sequences that are specific to the TI-83 and TI-82 models of calculator.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
					✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓					

Course(s):

	10	20	30
Applied Mathematics		✓	
Pure Mathematics		✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1997

ISBN: 0969698143

Title: Explore Quadratic Functions with the TI-83 or TI-82

Est. WCP Price(s): $17.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

Exploring Functions with the TI-82 Graphics Calculator

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Geometer's Sketchpad
- The Geometer's Sketchpad (Macintosh Version 3)
- The Geometer's Sketchpad (Windows Version 3.03)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
- Macintosh Version: Three 3.5" discs, one binder with User Guide and Reference Manual, 242 pages, softcover; Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
- Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 20, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 20. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
- This resource can have greater applications as the user becomes more familiar with the program.
- The videocassette supports both Macintosh and Windows.

System Requirements:
- Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
- Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
- The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
	✓		✓						
Common	C1	C2	C3	C4	C5	C6			
	✓				✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
					✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
Fax: (905) 727-6265
Internet: http://www.spectrumed.com

Copyright:
1995
1995

Component Titles: **Est. WCP Price(s):**
- The Geometer's Sketchpad (Macintosh Version 3) $274.95
- The Geometer's Sketchpad (Windows Version 3.03) $274.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓		✓		✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓		✓				

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc.
Distributor: Davidson & Associates, Inc.
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
Fax: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996

ISBN: 0784910634

Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)

Est. WCP Price(s): $79.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

60

Alberta EDUCATION

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedova, J.Z. et al.

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
						✓		✓	✓
Common	C1	C2	C3	C4	C5	C6			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	20	30
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

Publisher: Prentice Hall, Inc.
Distributor: Prentice Hall Ginn Publishing Co.
1870 Birchmount Road
SCARBOROUGH ON M1P 2J7
Phone: (416) 293-3621
Fax: (416) 297-2601
Internet: http://www.prenhall.com

Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

C1

©Alberta Education, Alberta, Canada

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Functions

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
		✓			✓				
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
				✓		✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991
ISBN: 0969524404
Title: Using the TI-81 Graphics Calculator to Explore Functions
Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 20
LEARNING AND TEACHING RESOURCES

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536, (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1993

ISBN: 0969698100

Title: What If...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Est. WCP Price(s): $12.30

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Programming and Programs for the TI-82 Graphics Calculator

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	

Common	C1	C2	C3	C4	C5	C6
			✓	✓	✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1994

ISBN: 1895997011

Title: Programming and Programs for the TI-82 Graphics Calculator

Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Exploring Functions with the TI-82 Graphics Calculator

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Exploring Statistics with the TI-82 Graphics Calculator

Annotation:
This resource manual uses the TI-82 graphics calculator to explo[illegible]nd develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994

ISBN: 189599702X

Title: Exploring Statistics with the TI-82 Graphics Calculator

Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

WCP

RADE (Radian Protractor and Teacher's Guide)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
One Radian Protractor and Teacher's Guide, 20 pages, loose, all in a softcover folder

Author(s):
Gagnon-Messier, D.; Forget, R.

Annotation:
The RADE is a circular protractor with scales in radians and decimals of a radian, p radians and fractions of p radians, as well as degrees. The accompanying teacher's guide explains the use of the protractor and provides overheads and question/answer worksheets for student use to reinforce concepts.

Comments:
- This resource is available in English and in French.
- The use of this resource is primarily limited to Pure Mathematics 30, outcomes P8-1 and P8-2, with a limited applicability to cluster C3 in Pure Mathematics 10 and Applied Mathematics 10.

Cautions:
- This resource is often marketed as part of a kit that contains other elements. The other components of the kit were either not approved as WCP resources for Grade 10 to Grade 12, or considered as more appropriate for Grade 7 to Grade 9.
- The approved resource consists only of the student protractor and the accompanying print guide.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
			✓			

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
								✓	

Course(s):

	10	20	30
Applied Mathematics	✓		
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓		✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓	✓	✓			

Publisher: Societe RADE Enr.
Distributor: Curriculum Innovations
Box 48, Site 3, RR4
STONY PLAIN AB T7Z 1X4
Phone: (403) 963-5992
Fax: (403) 963-5981

Title: RADE (Radian Protractor and Teacher's Guide)
Est. WCP Price(s): $10.00

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedoya, J.Z. et al.

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
						✓		✓	✓

Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**

Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	**20**	**30**
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**		**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

Publisher: Prentice Hall, Inc.
Distributor: Prentice Hall Ginn Publishing Co.
1870 Birchmount Road
SCARBOROUGH ON M1P 2J7
Phone: (416) 293-3621
Fax: (416) 297-2601
Internet: http://www.prenhall.com/

Copyright:	**ISBN:**	**Component Titles:**	**Est. WCP Price(s):**
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

C3

©Alberta Education, Alberta, Canada

String Invision Conics Model
(includes Teacher's Guide)

Annotation:
This model transfers a beam of light from the overhead projector to the visual representation of a double-napped cone, creating a conic. It is particularly effective in demonstrating the cases involving degenerate conics.

Comments:
- The model is intended as a teacher demonstration tool, more than as a student exploration tool.

Authorization Status:
Support

Audience: General

WCP Category:
Depth

Physical Characteristics:
One wood/metal/string model; Teacher's Guide, 13 pages, coilbound; overhead materials

Author(s):
Hillacre, D.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
									✓

Course(s):

	10	20	30
Applied Mathematics			
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓				✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
							✓		

Publisher: Belle Vue Software
Distributor: Belle Vue Software
25 Windsor Street
SPRUCE GROVE AB T7X 1L6
Phone: (403) 962-9275

Title:
String Invision Conics Model (includes Teacher's Guide)

Est. WCP Price(s):
$80.00

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

PURE MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Functions

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	20	30
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1991

ISBN: 0969524404

Title: Using the TI-81 Graphics Calculator to Explore Functions

Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

Alberta EDUCATION

PURE MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Authorization Status:
Support

WCP Category:
Depth

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
						✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
							✓		

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412

Title: Using the TI-81 Graphics Calculator to Explore Statistics

Est. WCP Price(s): $8.95

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

©Alberta Education, Alberta, Canada

Alberta EDUCATION

PURE MATHEMATICS 30
LEARNING AND TEACHING RESOURCES

Programming and Programs for the TI-82 Graphics Calculator

Authorization Status:
Authorized Teaching

WCP Category:
Teacher

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	

Common	C1	C2	C3	C4	C5	C6
			✓	✓	✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	20	30
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations				Shape and Space		Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Supplier: LRDC
Phone: (403) 427-5775
Fax: (403) 422-9750
Internet: http://www.lrdc.edc.gov.ab.ca

AUTHORIZED RESOURCES UNDER REVIEW

RESOURCES TO BE RETAINED

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
Algebra Tiles for the Overhead Projector (Print, Manipulatives)	Support	Kit	Mathematics 14
Algebra Tiles for the Overhead Projector (Student Set, Manipulatives Only)	Support	Kit	Mathematics 14
Applications of Mathematics (Student Text)	Basic	Print	Mathematics 14
Calculus: A Problem-Solving Approach: Solutions Manual	Basic	Print	Mathematics 31
Calculus: A Problem-Solving Approach (Student Text)	Basic	Print	Mathematics 31
Conic Section Model	Basic	Kit	Mathematics 30
Consumer and Career Mathematics (2nd Canadian Ed.)	Basic	Print	Mathematics 24
Consumer Mathematics (Student Text)	Basic	Print	Mathematics 24
Consumer Mathematics: Teacher's Manual & Solution Key	Support	Print	Mathematics 24
Cooperative Learning in Mathematics: A Handbook for Teachers	Authorized Teaching	Print	Grades 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Curriculum and Evaluation Standards for School Mathematics	Authorized Teaching	Print	Grades 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Joe Sceptic	Support	Videocassette	Mathematics 10 / 13
Language of Graphs, The: A Collection of Teaching Materials	Authorized Teaching	Print	Mathematics 14
Math 31	Basic	Print	Mathematics 31
Mathematics Assessment: Myths, Models, Good Questions, and Practical Suggestions	Authorized Teaching	Print	Grades 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Mathematics Level 4 (CAI - CD-ROM) (Macintosh Version)	Basic	CD-ROM	Mathematics 30
Professional Standards for Teaching Mathematics	Authorized Teaching	Print	Grades 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Single Variable Calculus (2nd Ed.) (Student Text)	Authorized Teaching	Print	Mathematics 31
Single Variable Calculus (2nd Ed.): Volume I: Student's Solutions Manual	Authorized Teaching	Print	Mathematics 31
Single Variable Calculus (2nd Ed.): Volume I: Study Guide	Authorized Teaching	Print	Mathematics 31
Zap-a-Graph (Macintosh Version)		Software	Mathematics 10 / 20 / 30 / 31 13 / 23 / 33
Active Learning Alge-Tiles: A 'Hands-On' Resource for Learning Algebra: Grades 7 to 11+	Basic	Kit	Mathematics 10 / 20 / 30 13 / 23 / 33

AUTHORIZED RESOURCES UNDER REVIEW

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
RESOURCES TO BE RETAINED (Continued)			
Catch 31 Introduction to Calculus and Vectors; The Derivative/The Power Rule; The Sum Rule and the Chain Rule; The Product Rule and the Quotient Rule; Derivatives and Graph Sketching; Problems Using Maxima and Minima; Motion: Distance, Velocity and Acceleration; Derivatives for Relations or Functions Defined Implicitly; Problems Involving Related Rates; Integration; Applications of a Primitive to Area and Motion	Basic	Videocassette	Mathematics 31
Classroom Assessment Materials Project (CAMP) Classroom Assessment Materials Project (CAMP): Senior High (Mathematics)	Authorized Teaching	Print	Mathematics 10 / 13 / 14 / 20 / 23 / 24 / 31
Math Wise Measuring - Measuring Instruments; Measuring - Formulas; Comparing - Numerical Comparisons; Comparing - Percent; Comparing - Finding a Common Unit; Comparing - Proportion; Locating and Interpreting - Organizing Information; Locating and Interpreting - Graphs; Locating and Interpreting - Maps, Charts and Tables; Predicting - Probability; Predicting - Choosing a Sample; Predicting - Averages	Support	Videocassette	Mathematics 14
Mathways Decimal Point, The; Area; Volume; The Percent	Support	Videocassette	Mathematics 14
McGraw-Hill Ryerson College Custom Series Mathematics Advantage, The: First Term Calculus: Book 1: A Workbook of 5 Final Examinations with Solutions	Authorized Teaching	Print	Mathematics 31
McGraw-Hill Ryerson Mathematics Program Calculus: A First Course: Solutions Manual	Basic	Print	Mathematics 31
McGraw-Hill Ryerson Mathematics Program Calculus: A First Course (Student Text)	Basic	Print	Mathematics 31
NCTM How To--series How to Evaluate Progress in Problem Solving - English Language Version	Authorized Teaching	Print	Grades 7, 8, 9, 10, 11, 12

AUTHORIZED RESOURCES UNDER REVIEW

RESOURCES TO BE WITHDRAWN AUGUST 31, 1999

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
Addison Wesley Mathematics 10 (Student Text)	Basic	Print	Mathematics 10
Addison Wesley Mathematics 10: Teacher Resource Book	Authorized Teaching	Print	Mathematics 10
Algebra Tiles for the Overhead Projector (Print, Manipulatives)	Support	Kit	Mathematics 10 / 13
Algebra Tiles for the Overhead Projector (Student Set, Manipulatives Only)	Support	Kit	Mathematics 10 / 13
Applied Mathematics 10 (3rd Ed.) (Student Text)	Basic	Print	Mathematics 10
Geometric Presupposer, The: Points and Lines (Apple Version)	Support	Software	Grades 7, 8, 9, 10
Graphing Linear Functions (Apple Version)	Support	Software	Grades 9, 10
Holtmath 10 (Student Text)	Basic	Print	Mathematics 10
Holtmath 10: Teacher Resource Manual	Authorized Teaching	Print	Mathematics 10
Language of Graphs, The: A Collection of Teaching Materials	Authorized Teaching	Print	Mathematics 10 / 13
Math Matters: Book 2 (Alberta Edition, 2nd Ed.) (Student Text)	Basic	Print	Mathematics 13
Mathematics 10: Principles and Processes: Advanced Level Math 10: Teacher's Resources Masters	Authorized Teaching	Print	Mathematics 10
Mathematics 10: Principles and Processes: Advanced Level Math 10: Student Text	Basic	Print	Mathematics 10
Mathematics for a Modern World: Book 2 (Student Text) (3rd Ed.)	Basic	Print	Mathematics 13
Problem Solving in Algebra (Apple Version)	Support	Software	Grades 8, 9, 10, 11, 12
Quadrilaterals (Apple Version)	Support	Software	Mathematics 20
Vectors, Matrices and Algebraic Structures	Basic	Print	Mathematics 30
Whatsit Corporation, The (Apple Version)	Support	Software	Grades 10, 11, 12
Geometric Supposer Geometric Supposer, The: Quadrilaterals (IBM Version)	Support	Software	Mathematics 20

AUTHORIZED RESOURCES UNDER REVIEW

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
RESOURCES TO BE WITHDRAWN AUGUST 31, 1999 (Continued)			
Math Wise Measuring - Measuring Instruments; Measuring - Formulas; Comparing - Numerical Comparisons; Comparing - Percent; Comparing - Finding a Common Unit; Comparing - Proportion; Locating and Interpreting - Organizing Information; Locating and Interpreting - Graphs; Locating and Interpreting - Maps, Charts and Tables; Predicting - Probability; Predicting - Choosing a Sample; Predicting - Averages	Support	Videocassette	Mathematics 10 / 13
Success with Algebra Equations I (Apple Version)	Support	Software	Grades 7, 8, 9, 10, 11
Success with Algebra Equations II (Apple Version)	Support	Software	Grades 8, 9, 10, 11
Success with Algebra Equations III (Apple Version)	Support	Software	Grades 10, 11, 12
Success with Algebra Factoring Algebraic Expressions (Apple Version)	Support	Software	Grade 10
Success with Algebra Simultaneous Linear Equations (Apple Version)	Support	Software	Grades 9, 10, 11
Success with Algebra Solving Fractional Equations (Apple Version)	Support	Software	Grades 10, 11, 12
Success with Algebra Solving Quadratic Equations (Apple Version)	Support	Software	Grades 9, 10, 11, 12
Success with Algebra Word Problems Algebra Word Problems II: Area, Perimeter, and Lever (Apple Version)	Support	Software	Grade 10
Success with Algebra Word Problems Algebra Word Problems III: Mixture, Coin and Investment (Apple Version)	Support	Software	Grades 8, 9, 10
Trigonometric Functions I: Solving Triangles Trigonometric Ratios; Solving Right Triangles	Support	Videocassette	Mathematics 10

©Alberta Education, Alberta, Canada

AUTHORIZED RESOURCES UNDER REVIEW

RESOURCES TO BE WITHDRAWN AUGUST 31, 2000

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
Addison-Wesley Mathematics 11 (National Edition): Teacher's Resource Book	Authorized Teaching	Print	Mathematics 20
Algebra Tiles for the Overhead Projector (Print, Manipulatives)	Support	Kit	Mathematics 20 / 23
Algebra Tiles for the Overhead Projector (Student Set, Manipulatives Only)	Support	Kit	Mathematics 20
Algebra Tiles for the Overhead Projector (Student Set, Manipulatives Only)	Support	Kit	Mathematics 23
Applied Mathematics 11: Student Text (2nd Ed.)	Basic	Print	Mathematics 23
Applied Mathematics 11: Teacher's Guide (2nd Ed.)	Authorized Teaching	Print	Mathematics 23
Congruent Triangles (Apple II Version)	Support	Software	Mathematics 13, 20
Geometry: Angles of Triangles and Polygons (Apple Version)	Support	Software	Mathematics 13, 20
Holtmath 11 (Student Text)	Basic	Print	Mathematics 20
Holtmath 11: Teacher's Resource Manual	Authorized Teaching	Print	Mathematics 20
Math Matters: Book 3 (Alberta Edition)	Basic	Print	Mathematics 23
Mathematics 11: Student Text (National Ed.)	Basic	Print	Mathematics 20
Mathematics for a Modern World: Book 3: Student Text (3rd Edition)	Basic	Print	Mathematics 23
Mathematics: Principles and Process 11 (Student Text)	Basic	Print	Mathematics 20
Mathematics: Principles and Process 11: Teacher's Resource Package	Authorized Teaching	Print	Mathematics 20
Of Dice and Men	Support	Videocassette	Mathematics 20 / 23
Math Sense Introduction to Relations; Introduction to Functions; Vertical Translation of Functions; Horizontal Translation of Functions; Dilatation and Reflection of Functions; Transformation of Functions: Changing All Parameters; Quadratic Functions: Characteristics of Quadratic Functions; Quadratic Functions: The Quadratic Formula; Quadratic Functions: Graphing Quadratics Using Transformations; Quadratic Functions: Problem Applications; Geometry: An Introduction; Geometry: The Circle; Geometry: Chords on Circles; Geometry: Tangents to Circles	Basic	Videocassette	Mathematics 20
Quantitative Literacy Art and Techniques of Simulation, The (Student Text)	Basic	Print	Mathematics 20

AUTHORIZED RESOURCES UNDER REVIEW

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
RESOURCES TO BE WITHDRAWN AUGUST 31, 2000 (Continued)			
Quantitative Literacy Art and Techniques of Simulation, The: Teacher Edition	Authorized Teaching	Print	Mathematics 20
Quantitative Literacy Exploring Probability (Student Text)	Basic	Print	Mathematics 20 / 23
Quantitative Literacy Exploring Probability: Teacher Edition	Authorized Teaching	Print	Mathematics 20 / 23
Trigonometric Functions I: Solving Triangles Angles on the Plane; The Sine Law; The Cosine Law; Applications of the Sine and Cosine Law	Support	Videocassette	Mathematics 20
Trigonometric Functions I: Solving Triangles Trigonometric Ratios; Solving Right Triangles	Support	Videocassette	Mathematics 23

© Alberta Education, Alberta, Canada

AUTHORIZED RESOURCES UNDER REVIEW

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
RESOURCES TO BE WITHDRAWN AUGUST 31, 2001			
Addison-Wesley Mathematics 12: Teacher's Resource Book (National Edition)	Authorized Teaching	Print	Mathematics 30
Algebra Drill & Practice I (Apple Version)	Support	Software	Grades 9, 10, 11, 12
Algebra Drill & Practice II (Apple Version)	Support	Software	Grades 10, 11, 12
Computer Graphing Experiments Volume 1 (Apple II format)	Support	Software	Grades 10, 11, 12
Computer Graphing Experiments Volume 2 (Apple II format)	Support	Software	Grades 10, 11, 12
Computer Graphing Experiments Volume 3 (Apple II format)	Support	Software	Grades 10, 11, 12
Electronic Classroom, The: Teacher Resource Manual	Authorized Teaching	Print	Mathematics 10 / 20 / 30 13 / 23 / 33
Graphing Equations (Apple Version)	Support	Software	Grades 10, 11, 12
Green Globs and Graphing Equations (Apple Version)	Support	Software	Grades 10, 11, 12
Holtmath 12 (Student Text)	Basic	Print	Mathematics 30
Holtmath 12: Teacher's Resource Manual	Authorized Teaching	Print	Mathematics 30
Master Grapher and 3D Grapher (Version 1.0 Apple, IBM, Macintosh)	Support	Software	Grades 10, 11, 12
Math Matters: Book 4 (Alberta Edition)	Basic	Print	Mathematics 33
Mathematics 12 (National Ed.) (Student Text)	Basic	Print	Mathematics 30
Mathematics for a Modern World: Book 4 (2nd Ed., Alberta Edition) (Student Text)	Basic	Print	Mathematics 33
Mathematics: Principles and Process 12 (Student Text)	Basic	Print	Mathematics 30
Mathematics: Principles and Process 12: Teacher's Resource Package	Authorized Teaching	Print	Mathematics 30
Money Manager (Apple Version)	Support	Software	Grades 10, 11, 12
Catch 30 Polynomial Functions; Exponential and Logarithmic Functions; Arithmetic Sequences and Series; Geometric Sequences and Series; Permutations and Combinations; Statistics	Basic	Videocassette	Mathematics 30
Math Factor Math Factor (Programs 1 – 58)		Videocassette	Mathematics 30

AUTHORIZED RESOURCES UNDER REVIEW

RESOURCES TO BE WITHDRAWN AUGUST 31, 2001 (Continued)

SERIES / TITLE	CURRENT STATUS	FORMAT	COURSE(S) OR GRADE(S)
Math Sense Introduction to Relations; Introduction to Functions; Vertical Translation of Functions; Horizontal Translation of Functions; Dilatation and Reflection of Functions; Transformation of Functions: Changing All Parameters; Quadratic Functions: Characteristics of Quadratic Functions; Quadratic Functions: The Quadratic Formula; Quadratic Functions: Graphing Quadratics Using Transformations; Quadratic Functions: Problem Applications; Geometry: An Introduction; Geometry: The Circle; Geometry: Chords on Circles; Geometry: Tangents to Circles	Basic	Videocassette	Mathematics 33
Quantitative Literacy Exploring Data (Student Text)	Basic	Print	Mathematics 10 / 13 / 30 / 33
Quantitative Literacy Exploring Data: Teacher Edition	Authorized Teaching	Print	Mathematics 10 / 13 / 33
Quantitative Literacy Exploring Data: Teacher Edition	Authorized Teaching	Print	Mathematics 33
Quantitative Literacy Exploring Surveys and Information from Samples (Student Text)	Basic	Print	Mathematics 30 / 33
Quantitative Literacy Exploring Surveys and Information from Samples: Teacher Edition	Authorized Teaching	Print	Mathematics 30 / 33
Trigonometric Functions I: Solving Triangles Angles on the Plane	Support	Videocassette	Mathematics 30
Trigonometric Functions I: Solving Triangles Angles on the Plane; The Sine Law; The Cosine Law; Applications of the Sine and Cosine Law	Support	Videocassette	Mathematics 33

SERIES/TITLE LISTING

SERIES / TITLE	COURSE(S)
Addison-Wesley Mathematics 10 (Western Canadian Edition)	Pure Mathematics 10
• Student Text	
• Independent Study Guide	
• Teacher's Resource Book (includes CD-ROM with Selected Solutions from Student Text and Self-Test Solutions from Independent Study Guide)	
• Template and Data Kit (includes Teacher's Guide and CD-ROM, Version 1.0)	
Addison-Wesley Mathematics 11 (Western Canadian Edition)	Pure Mathematics 20
• Student Text	
Active Learning	Applied Mathematics 20
Algo-Tiles: Grades 7–11 (Ages 12–16+)	Pure Mathematics 10 / 20
Explore Quadratic Functions with the TI-83 or TI-82	Applied Mathematics 20 Pure Mathematics 20
Exploring Functions with the TI-82 Graphics Calculator	Applied Mathematics 10 / 20 Pure Mathematics 10 / 20 / 30
Exploring Statistics with the TI-82 Graphics Calculator	Applied Mathematics 10 / 20 / 30 Pure Mathematics 10 / 30
Geometer's Sketchpad	Applied Mathematics 10 / 20
• The Geometer's Sketchpad (Macintosh Version 3)	Pure Mathematics 10 / 20
• The Geometer's Sketchpad (Windows Version 3.03)	
Geometry Blaster (Windows / Macintosh CD-ROM Version)	Applied Mathematics 10 / 20 Pure Mathematics 10 / 20
MATHPOWER 10 (Western Edition)	Pure Mathematics 10
• Student Text	
• Teacher's Resource	
• Computer Data Bank (Teacher's Resource and Data Disk)	
• Computerized Assessment Bank	
Programming and Programs for the TI-82 Graphics Calculator	Applied Mathematics 10 / 20 / 30 Pure Mathematics 10 / 20 / 30
RADE (Radian Protractor and Teacher's Guide)	Applied Mathematics 10 Pure Mathematics 10 / 30
Box Cars & One-Eyed Jacks: Math Games for Kids	Applied Mathematics 10
Radical Math: Math Games Using Cards and Dice (Volume VII) (Grades 7 – 12)	Pure Mathematics 10

SERIES/TITLE LISTING

SERIES / TITLE	COURSE(S)
Secondary Math	Applied Mathematics 30
• Secondary Math Lab Toolkit (Macintosh Version)	Pure Mathematics 10 / 20 / 30
• Secondary Math Lab Toolkit (Windows Version)	
String Invision Conics Model (includes Teacher's Guide)	Pure Mathematics 30
Using the TI-81 Graphics Calculator	Applied Mathematics 10 / 20
Using the TI-81 Graphics Calculator to Explore Functions	Pure Mathematics 10 / 20 / 30
Using the TI-81 Graphics Calculator	Applied Mathematics 10 / 20 / 30
Using the TI-81 Graphics Calculator to Explore Statistics	Pure Mathematics 30
What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator	Applied Mathematics 10 / 20 Pure Mathematics 10 / 20
What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator	Applied Mathematics 10 / 20 Pure Mathematics 10